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10/611,683	06/30/2003	Surendra Verma	13768.783.45	5332

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EXAMINER
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ART UNIT	PAPER NUMBER
2168	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

		Application No.	Applicant(s)
		10/611,683	VERMA ET AL.
Office Action Summary		Examiner	Art Unit	
		OLUBUSOLA ONI	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2007*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27 and 45-55* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27 and 45-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Responds to Amendment

1.　This action is responsive to communications: Amendment filed on 04/25/2007

2.　Claims 1, 17 and 45 have been amended.

3.　New grounds of rejection are based on newly amended claims.

4. The 101 rejections have been withdrawn.

Claim Rejections - 35 USC § 103

5.　The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.　Claims 1-27 and 45-55 are rejected under 35 U.S.C. 103(a) as being anticipated by Bendert et al. (Patent No. 6,738,971) hereinafter "Bendert" and further in view Komine et al. (Patent No. US 6, 760,733) hereinafter " Komine".

For claim 1, Bendert teaches "in a distributed computing environment that typically uses a single distributed transaction coordinator to monitor changes to files on a per logical system volume basis, a series of computer programs with computer executable

instructions within one or more computer storage medium used to provide a plurality of

independent resources managers that operate with respect to transactions, thereby

acting as separate units within the volume in order to ensure that operations to one

database within the volume do not affect operations of other databases or users of the

volume, the series of computer programs"([Col. 3, lines 30-59, Col. 4-Col. 5, lines 1-46]

wherein Bendert's teachings of shared file system request manager and a byte file

system request manager, and also have their separate file space (database)for storing

and distinguish the different file system objects of the request managers) comprising:

Bendert teaches "a logical volume of a file system that includes a plurality of files or

resources among a distributed system, wherein one or more of the plurality of files or

resources within the file system is controlled by a particular resource manager, which is

an object that participates in a transaction and provides a subsystem that implements a

transaction-protected resources that monitors and controls changes to files or

resources" ([Col. 4, lines 63-Col. 5,lines 1-26]);

Bendert teaches "a plurality of resources managers maintained on file system volume,

each resource manager independent from one another such that a file or resource

monitored and controlled by a particular resources manager cannot be monitored or

controlled by any other resource manager from the plurality or resource managers, and

wherein each resource manager from the plurality of resources managers has

associated transactional metadata and a collection of associated files, wherein the

transactional metadata is maintained based on a scope of control set for each of

plurality of resource managers by defining a collection of files or resources based on

one or more of directory hierarchy, a file extension, a file type, a timestamp, a file size,

or a tag within the files for which the particular resources manager is responsible in

order to allow various options offering different levels of performance, reliability, feature

availability, and manageability on a per-resource basis rather than a per volume basis"

"([Col.4, lines 63-Col. 5, lines1-46])

Bendert's teachings include APIs that control access to different files but does not

indicate that they are Independent from one another.

However, Komine's teaching includes RMs 51 to 56, which are independent from each

other (Col. 5, lines 1-67)

Therefore it would have been obvious to one of ordinary skills in the art at the time of

the invention to modify Bendert's teachings of shared file system request manager and

a byte file system request manager with Komine's teachings, which includes RMs 51 to

56, which are independent from each other ([Col. 5,lines 1-67] Komine). However,

Bendert teaches files comprising metadata which also include file size or file type, that

also have their separate file space (database) for storing and distinguish the different

file system objects of the request managers) ([Col. 4,lines 63-Col. 5, lines 1-46]

Bendert).

For claim 2, this claim is rejected on grounds corresponding to the argument give above

for rejected claim 1 above. Bendert teaches "wherein at least one resource manager

comprises properties that differ from properties of another resource manager"([Col.4,

lines 63-Col. 5, lines 23]wherein shared file system request manager and byte file system request manager corresponds to different file systems).

For claim 3, this claim is rejected on grounds corresponding to the argument give above for rejected claim 1 above. Bendert teaches, "wherein at least one resource manager comprises transactional file system metadata that differ from transactional file system metadata of another resource manager" ([Col. 5,lines 1-25] wherein the shared file system request manager corresponds to the shared file system which stores files 70ab...n and 74ab...n in files space 80ab...n. which differs from the byte file system).

For claim 4, this claim is rejected on grounds corresponding to the argument give above for rejected claim 1 above. Bendert teaches, "wherein one of the resource managers contains files associated with a first database, and wherein another of the resource managers contains files associated with a second database" ([Col. 5, lines 9-26] wherein the shared file system request manager has a file space 80ab...n and byte file system request manager has a file space 90ab...n).

For claim 5, this claim is rejected on grounds corresponding to the argument give above for rejected claim 1 above. Bendert teaches "wherein the file system maintains a volume control data structure associated with a set containing at least one resource manager control data structure "([Col. 6, lines 4-38, Col. 7, lines 1-11]).

For claim 6, this claim is rejected on grounds corresponding to the argument give above for rejected claim 1 above. Bendert teaches "further comprising a mechanism in the file system for discovering a resource manager control data structure associated with a file data structure"([Col.6, lines 21-25, Col. 7, lines 14-17] wherein Bendert's teachings include an identifier and FCB associated with the WRB).

For claim 7, this claim is rejected on grounds corresponding to the argument give above for rejected claim 1 above. Bendert teaches "wherein the file system maintains a first data structure having data identifying at least one resource manager control data structure" "([Col. 6, lines 4-38, Col. 7, lines 1-11] wherein a work request block is created using information from the file control block, due to request to open a file 70a.).

For claim 8, this claim is rejected on grounds corresponding to the argument give above for rejected claim 7 above. Bendert teaches " wherein each file in the collection includes a reference to data maintained in the first data structure to identify a resource manager control data structure for that file"(Col. 3, lines 12-26,Col. 4, lines 50-62, Col. 7, lines 15-29).

For claim 9, this claim is rejected on grounds corresponding to the argument give above for rejected claim 1 above. Bendert teaches "an open file object on the volume, wherein the file system maintains a file control data structure corresponding to the open file object, the file control data structure including a reference to a resource manager control

data structure that corresponds to a resource manager to which the file is associated"

([Col.6, lines 21-25, Col. 7, lines 14-17] wherein Bendert's teachings include an

identifier and FCB associated with the WRB).

For claim 10, this claim is rejected on grounds corresponding to the argument give

above for rejected claim 9 above. Bendert teaches "wherein the file control data structure

includes data that indicates that the open file object comprises the resource manager"

([Col. 6, lines 4-38, Col. 7, lines 1-11])

For claim 11 this claim is rejected on grounds corresponding to the argument give

above for rejected claim 9 above. Bendert teaches, "wherein the data is persisted in a

record in a file system table, the record corresponding to the file" (Col. 6, lines 12-25).

For claim 12, this claim is rejected on grounds corresponding to the argument give

above for rejected claim 1 above. Bendert teaches "wherein the file system includes a

set of functions for interfacing with the resource manager"([Col. 6, lines 10-13])

For claim 13, this claim is rejected on grounds corresponding to the argument give

above for rejected claim 12 above. Bendert teaches "wherein one function creates a

new resource manager" (Col. 4, lines 9-14).

For claim 14, this claim is rejected on grounds corresponding to the argument give

above for rejected claim 12 above. Bendert teaches "wherein one function starts a

resource manager" ([Col. 5, lines 37-46, Col. 6, lines 10-13] wherein when a request

arrives it will be sent to the request manager)

For claim 15, this claim is rejected on grounds corresponding to the argument give

above for rejected claim 1 above. Bendert teaches "wherein each resource manager

corresponds to a directory hierarchy, and wherein the collection of associated files

comprises files logically under that directory hierarchy"(Col. 5, lines 1-52).

For claim 16, this claim is rejected on grounds corresponding to the argument give

above for rejected claim 1 above. Bendert teaches "wherein associated transactional

metadata includes a log file" (Col. 5, lines 1-4).

For claim 17, Bendert teaches "in a distributed computing environment that typically

uses a single distributed transaction coordinator to monitor changes to files on a per

logical system volume basis, a method of associating a file object with a resource

manager in a system that includes a plurality of independent resource managers that

operate with respect to transactions, thereby acting as separate units within the volume

in order to ensure that operations to one database within the volume do not affect

operations of other databases or users of the volume" ([Col. 3, lines 30-59, Col. 4-Col.

5, lines 1-46] wherein Bendert's teachings of shared file system request manager and a

byte file system request manager, and also have their separate file space (database)for

storing and distinguish the different file system objects of the request managers)

Bendert teaches "separating a volume into a plurality of resources managers that are

independent from one another such that a file or resource monitored and controlled by a

particular resource manager cannot be monitored or controlled by any other resource

manager from the plurality of resource managers and each resource manager

associated transaction metadata which is maintained based on a scope of control set

for each of plurality of resource managers by defining a collection of files or resources

based on one or more of directory hierarchy, for which the particular resources

manager is responsible in order to allow various options offering different levels of

performance, reliability, feature availability, and manageability on a per-resource basis

rather than a per volume basis" ([Col.4, lines 63-Col. 5, lines1-46])

 Bendert teaches "receiving a request to open a file system object associated with a

resource manager" (Col. 6,lines 11-17); "creating a file control block for the file system

object" (Col. 6, lines 18-20); "determining that the file control block does not references a

resource manager control block, and based on the determination, discovering a

resource manager control block corresponding to the file system object and associating

the file control block with the discovered resource manager control block by storing a

pointer in the file control bloc that identifies the discovered resource manager control

block, the resource manager responsible for the file system object, or both" ([Col. 6,

lines 4-38, Col. 7, lines 1-11] wherein a work request block is created using information

from the file control block. wherein Bendert's teachings also includes an

identifier(pointer).

Bendert's teachings include APIs that control access to different files but does not

indicate that they are Independent from one another.

However, Komine's teaching includes RMs 51 to 56, which are independent from each

other (Col. 5, lines 1-67)

Therefore it would have been obvious to one of ordinary skills in the art at the time of

the invention to modify Bendert's teachings of shared file system request manager and

a byte file system request manager with Komine's teachings, which includes RMs 51 to

56, which are independent from each other ([Col. 5,lines 1-67] Komine). However,

Bendert teaches files comprising metadata which also include file size or file type, that

also have their separate file space (database) for storing and distinguish the different

file system objects of the request managers) ([Col. 4,lines 63-Col. 5, lines 1-46]

Bendert).

For claim 18, this claim is rejected on grounds corresponding to the argument give

above for rejected claim 17 above. Bendert teaches "wherein discovering the resource

manager control block includes creating a resource manager control block" ([Col. 6, lines

4-38, Col. 7, lines 1-11] creating WRB).

For claim 19, this claim is rejected on grounds corresponding to the argument give

above for rejected claim 17 above. Bendert teaches "wherein associating the file control

block with the discovered resource manager control block comprises writing a pointer into the file control block that points to the resource manager control block" ([Col.6, lines 21-25, Col. 7, lines 14-17] wherein Bendert's teachings include an identifier and FCB associated with the WRB).

For claim 20, this claim is rejected on grounds corresponding to the argument give above for rejected claim 17 above. Bendert teaches "wherein discovering the resource manager control block includes determining whether the resource manager control block exists, and if not, creating the resource manager control block, and modifying the file control block to include an association with the resource manager control block" ([Col. 6, lines 4-38, Col. 7, lines 1-11] wherein a work request block is created using information from the file control block. wherein Bendert's teachings also includes an identifier (pointer)

For claim 21, this claim is rejected on grounds corresponding to the argument give above for rejected claim 17 above. Bendert teaches "wherein discovering the resource manager control block includes locating a file control block of a parent file that is associated with the resource manager control block"([Col. 6, lines 4-38, Col. 7, lines 1-11] wherein a work request block is created using information from the file control block, due to request to open a file 70a.).

For claim 22, this claim is rejected on grounds corresponding to the argument give above for rejected claim 17 above. Bendert teaches "wherein discovering the resource manager control block includes locating a reference to a table location containing resource manager control block data, and using the reference to obtain a pointer to the resource manager control block"([Col. 6, lines 4-38, Col. 7, lines 15-17, wherein update to data blocks is accomplished by finding the data blocks that were changed using the identifiers in the WRB]).

For claim 23, this claim is rejected on grounds corresponding to the argument give above for rejected claim 22 above. Bendert teaches "wherein locating the reference to the table location comprises reading a header of the file object"(Col. 6, lines 12-25).

For claim 24, this claim is rejected on grounds corresponding to the argument give above for rejected claim 22 above. Bendert teaches "further comprising maintaining a table including the table location in a volume control block" ([Col. 20-26]).

For claim 25, this claim is rejected on grounds corresponding to the argument give above for rejected claim 17 above. Bendert teaches "wherein each resource manager corresponds to a subdirectory in the file system, and wherein the file system object is logically associated with the subdirectory"(Col. 5, lines 1-52).

For claim 26, this claim is rejected on grounds corresponding to the argument give above for rejected claim 17 above. Bendert teaches "wherein at least one resource manager is associated with a database, and further comprising, performing a transaction that includes at least one operation by the database and at least one operation by the file system" ([Col. 5,lines 1-25] wherein the shared file system request manager corresponds to the shared file system which stores files 70ab...n and 74ab...n in files space(database) 80ab...n. which differs from the byte file system).

For claim 27, this claim is rejected on grounds corresponding to the arguments given above for rejected claim 17 and is similarly rejected.

For claim 45, this claim is rejected on grounds corresponding to the arguments given above for rejected claim 1 and is similarly rejected.

For claim 46, this claim is rejected on grounds corresponding to the argument give above for rejected claim 45 above. Bendert teaches "receiving a request to perform the function" ([Col. 6, lines 10-13]

For claim 47, this claim is rejected on grounds corresponding to the argument give above for rejected claim 46 above. Bendert teaches "wherein receiving the request comprises receiving an application programming interface call" ([Col. 7, lines 32-38] API).

For claim 48, this claim is rejected on grounds corresponding to the argument give above for rejected claim 45 above. Bendert teaches "wherein the function corresponds to a backup operation of at least some of the files of a resource manager" ([Col. 6, lines 45-50] wherein updated data blocks are written to the permanent storage).

For claim 49,this claim is rejected on grounds corresponding to the argument give above for rejected claim 45 above. Bendert teaches "wherein the function corresponds to a restore operation of at least some of the files of a resource manager" (Col. 6, lines 50-65

For claim 50, this claim is rejected on grounds corresponding to the argument give above for rejected claim 45 above. Bendert teaches "wherein the function corresponds to a roll forward to a point in time operation"(Col. 6, lines 40-44).

For claim 51, this claim is rejected on grounds corresponding to the argument give above for rejected claim 45 above. Bendert teaches "wherein the function corresponds to a crash recovery operation"(Col. 6, lines 40-44).

For claim 52,this claim is rejected on grounds corresponding to the argument give above for rejected claim 45 above. Bendert teaches "wherein the function corresponds to a redo phase of a recovery operation" (Col.6, lines 50-62).

For claim 53, this claim is rejected on grounds corresponding to the argument give

above for rejected claim 52 above. Bendert teaches "performing the function at least

one other time" (Col.6, lines 50-62).

For claim 54, this claim is rejected on grounds corresponding to the argument give

above for rejected claim 45 above. Bendert teaches "wherein the function corresponds

to an undo phase of a recovery operation" (Col.6, lines 50-65).

For claim 55, is rejected on grounds corresponding to the arguments given above for

rejected claim 45 and is similarly rejected.

Response to Argument

7.   Applicant's arguments with respect to claims1-27 and 45-55 have been

considered but are moot in view of the new ground(s) of rejection.

CONCLUSION

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

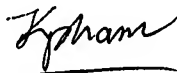than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to OLUBUSOLA ONI whose telephone number is 571-272-

2738. The examiner can normally be reached on 10.00-6.30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, TIM VO can be reached on 571-272-3642. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KHANH B. PHAM
PRIMARY EXAMINER

OLUBUSOLA ONI　KBP

Examiner

Art Unit 2168